

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TENNESSEE
KNOXVILLE DIVISION**

PROCON ANALYTICS, LLC,

Plaintiff,

vs.

SPIREON, INC.,

Defendant.

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3:19-cv-00201

CLAIM CONSTRUCTION ORDER

The case is before the Court for claim construction pursuant to Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed. Cir. 1995), aff'd, 517 U.S. 370, (1996). A Markman hearing was held on November 9, 2020. (ECF No. 54.) Present were Seth Ogden and Ed Lanquist, Jr., counsel for Plaintiff, and Matthew Google and Taylor Williams, counsel for Defendant.

I. BACKGROUND

A. Procedural Background

On April 2, 2019, Plaintiff Procon Analytics, LLC ("Procon") was served with a letter from Defendant Spireon, Inc. ("Spireon"), accusing it of infringement of U.S. Patent No. 10,089,598 (the "'598 Patent"). (ECF No. 1-1.) On April 25, 2019, Spireon followed up its first letter with a cease and desist demand with respect to any products that allegedly infringe the '598 Patent. On June 3, 2019, Procon brought this claim for declaratory judgement of noninfringement and invalidity of the '598 Patent, and filed an Amended Complaint on August 6, 2019. (ECF No. 9.) Spireon filed an Answer and Counterclaims on August 26, 2019. (ECF No. 10.)

Procon is a Tennessee limited liability company with a principal place of business in Irvine, California (ECF No. 9 ¶ 1), and Defendant Spireon is a Tennessee corporation with offices in Irvine, California and Knoxville, Tennessee (ECF No. 9 ¶ 2). Both parties are competitors in the connected car and vehicle management fields. Procon “offers a suite of connected-car products and services, including vehicle inventory management and service retention products, fleet-management tools, and other aftermarket solutions packaged for automotive retailers.” These products include both hardware and software solutions. (ECF No. 9 ¶¶ 22–26.) One such product is a software that helps new car automotive dealerships manage their inventory. (*Id.* ¶ 23.) Another product that Procon sells is a device that connects to the “on-board diagnostics (OBDII) port (or a panel attached thereto) of a vehicle.” (*Id.* ¶ 25.) This device is enabled to “transmit information to the cloud over a wireless network.” (*Id.*) Similarly, Spireon purports to be an “industry leader in Mobile Resource Management, offering lot management solutions to [the] automotive dealer industry.” (ECF No. 1-1 at PageID 9.) Spireon asserts that it is a “leader in the field of connected vehicle intelligence” and sells products that “facilitate[] the tracking, management, and protection of vehicles in various commercial applications and industries.” (ECF No. 10 at PageID 197.) It is Spireon’s contention that Procon continues “making, selling, and offering for sale products and services for managing vehicle inventory for dealerships that infringe on certain claims of the ’598 Patent[.]” (ECF No. 10 at PageID 198.)

B. Post-Grant Proceeding

Procon filed a Petition requesting Post-Grant Review of Claims 1–14 of the ’598 Patent on May 30, 2019. (ECF No. 12 ¶ 5). On November 22, 2019, the Patent Trial and Appeal Board (“PTAB”) declined to institute proceedings against the challenged claims. (ECF No. 17-1.) The parties did not dispute the meaning of any claim terms of the ’598 Patent in front of the PTAB and did not propose specific constructions for any of the claim terms. (ECF No. 17-1 at PageID 239.)

The PTAB gave “the claim terms of the ’598 patent their ordinary and customary meaning, as understood by one of ordinary skill in the art, and in view of the prosecution history of the ’598 patent.” (Id.) One of the key points in the PTAB’s decision was that the prior art failed to disclose location devices “owned by the auto dealer,” and thus this is a key point of contention in the current claim construction briefing. (ECF No. 38-6 at PageID 471.)

C. The ’598 Patent

The ’598 patent is entitled “Methods and Apparatus for Monitoring and Control of Electronic Devices” and it primarily discloses a method for machine to machine telemetry. The patent defines “telemetry” as “a technology that allows the remote measurement and reporting of information of interest to the system designer or operator.” (’598 patent, col. 1 l. 19–21.)

At its heart, the ’598 Patent discloses an “inventory management system” that “may be configured to provide machine-to-machine network connectivity” and “may be used in conjunction with a location device configured to transmit a vehicle identification number (VIN) and a device identifier of the location device.” ’598 Patent at Abstract. The technology in the ’598 Patent boils down to methods of communicating and gathering information from vehicles. As described in the abstract of the patent, “the inventory management system may be configured to: (1) track whether the location device is located within a predetermined perimeter; (2) provide current inventory and ownership status associated [with] the location device; and/or (3) place the location device in a sleep and/or passive state with periodic check-ins.” ’598 Patent at Abstract. The disclosure and claims also provide additional capabilities, such as receiving signals if the car’s battery is depleted or storing additional information about the vehicle in the database. (See generally, ’598 patent at 15:28–32, 16:43–48.)

In this case, all of the independent claims begin with “[a] method for managing a vehicle inventory.” (’598 patent, col. 27–28.) Claim 1 is the basis for most discussion on claim terms and provides as follows:

1. A method for managing a vehicle inventory for a dealer implemented by a computer having a processor and a memory, the method comprising:
 - while a location device is not communicatively coupled with a vehicle, associating the location device with a dealer’s group of available location devices in the memory, wherein the dealer’s group of available location devices comprises location devices owned by the dealer that are not coupled with any vehicle;
 - communicatively coupling the location device with a vehicle;
 - in response to the location device becoming communicatively coupled with the vehicle, the location device transmitting a connection notice over a network, the connection notice comprising a vehicle identifier and a location device identifier;
 - receiving, by the computer, the connection notice from the location device over the network;
 - in response to the connection notice received by the computer, the processor:
 - associating the location device identifier with the vehicle identifier in the memory; and
 - disassociating the location device from the dealer’s group of available location devices in the memory; and
 - receiving, by the computer, current location information from the location device.

II. APPLICABLE LEGAL STANDARD

“It is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed. Cir. 2005) (quoting Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc., 381 F.3d 1111, 1115 (Fed. Cir. 2004)). Courts, as a matter of law, must construe the claims of a patent in order to ascertain precisely what it is that is patented. See id.; see also Markman v. Westview Instruments, Inc., 517 U.S. 370, 387 (1996).

In engaging in that exercise, the words in the claims are “generally given their ordinary and customary meaning,” that is, “the meaning that the term would have to a person of ordinary

skill in the art in question at the time of the invention.” Phillips, 415 F.3d at 1312-13 (internal citations and quotation marks omitted). This ordinary and customary meaning “may be readily apparent even to lay judges,” and where that is the case, claim construction involves “little more than the application of the widely accepted meaning of commonly understood words.” Id. at 1314 (citing Brown v. 3M, 265 F.3d 1349, 1352 (Fed. Cir. 2001)).

However, as the ordinary and customary meaning is often not immediately apparent, courts must look to other sources of evidence—“the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.” Id. (citing Innova, 381 F.3d at 1116). In Phillips, the United States Court of Appeals for the Federal Circuit provided guidance on the relative weight given to evidence from these various sources. Id.

First, “the claims themselves provide substantial guidance as to the meaning of particular claim terms,” particularly the “context in which a term is used in the asserted claim.” Id. at 1314. But because claims are also part of a “fully integrated written instrument,” they must “be read in view of the specification, of which they are a part.” Markman, 52 F.3d at 978, 979 (citations omitted). As the Federal Circuit has stressed, “[a] patent’s specification provides necessary context for understanding the claims, and ‘is always highly relevant to the claim construction analysis.’” Abbott Labs. v. Sandoz, Inc., 566 F.3d 1282, 1288 (Fed. Cir. 2009) (en banc in part) (quoting Phillips, 415 F.3d at 1315). Further, “sometimes the specification offers practically incontrovertible directions about claim meaning,” as when inventors “act as their own lexicographers and give a specialized definition of claim terms,” or “intentionally disclaim, or disavow, subject matter that would otherwise fall within the scope of the claim.” Id. (internal citations and quotation marks omitted). But the Court must take care neither “to import limitations

into the claims from the specification,” nor to allow “the claims to enlarge what is patented beyond what the inventor has described as the invention.” Id. at 1288 (internal citations and quotation marks omitted). In addition, “a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment.” Resonate Inc. v. Alteon Websystems, Inc., 338 F.3d 1360, 1364-65 (Fed. Cir. 2003).

The prosecution history of the patent is the other type of “intrinsic evidence,” along with the specification, courts consider when determining the meaning of disputed terms. Phillips, 415 F.3d at 1317.

Finally, courts may consider extrinsic evidence—that is, “all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” Id. (quoting Markman, 52 F.3d at 980). Such evidence, however, is “less significant than the intrinsic record in determining the legally operative meaning of claim language.” Phillips, 415 F.3d at 1317 (internal quotations and citations omitted).

In engaging in a Markman analysis, a court is not required to “repeat or restate every claim term in order to comply with the ruling that claim construction is for the court.” U.S. Surgical Corp. v. Ethicon, Inc., 103 F.3d 1554, 1568 (Fed. Cir. 1997). Rather, “[c]laim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement.” Id.

During this Markman hearing, the Defendants advanced arguments that approximately 29 terms used in the patents are indefinite under Nautilus. Nautilus, Inc. v. Biosig Instruments, Inc., 572 U.S. 898, 910 (2014). In Nautilus, the Supreme Court announced that 35 U.S.C. §112, ¶2

“require[s] that a patent’s claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty. The definiteness requirement, so understood, mandates

clarity, while recognizing that absolute precision is unattainable. The standard we adopt accords with opinions of this Court stating that the certainty which the law requires in patents is not greater than is reasonable, having regard to their subject-matter.”

Id. at 910 (internal quotations omitted).

The Court follows Federal Circuit precedent and considers indefiniteness to the extent that “[i]ndefiniteness is a matter of claim construction, and the same principles that generally govern claim construction are applicable to determining whether allegedly indefinite claim language is subject to construction.” Praxair, Inc. v. ATMI, Inc., 543 F.3d 1306, 1319 (Fed. Cir. 2008) (citing Datamize, LLC v. Plumtree Software, Inc., 417 F.3d 1342, 1348 (Fed. Cir. 2005)).

“[U]nder controlling precedent, the ultimate question of indefiniteness is one of law.” Dow Chem. Co. v. NOVA Chems. Corp. (Can.), 809 F.3d 1223, 1224-25 (Fed. Cir. 2015). Under Teva, the Supreme Court acknowledged that subsidiary factual determinations are made in the course of claim construction. Teva Pharm. USA, Inc. v. Sandoz, Inc., 135 S. Ct. 831, 832 (2015). To the extent that a definiteness analysis relies on factual issues as to the knowledge of the person having ordinary skill in the art, it is an inquiry that “is amenable to resolution by the jury....” BJ Servs. Co. v. Halliburton Energy Servs., Inc., 338 F.3d 1368, 1372 (Fed. Cir. 2003) (“[D]efiniteness ... is amenable to resolution by the jury where the issues are factual in nature.”). Furthermore, the analysis of indefiniteness can be assessed both at the claim term level during Markman briefing, as well as at a claim level during summary judgment briefing. See, e.g., Cox Comm’s, Inc. v. Spring Comm’n Co., 838 F.3d 1224, 1228 (“[T]he district court decided, among other things, that the term ‘processing system’ was not indefinite, but did not warrant a construction....[T]he district court granted Cox’s motion [for partial summary judgment], finding that the claims were indefinite.”). The Cox Court also shed light on the ultimate question of indefiniteness under 35 U.S.C. § 112, ¶ 2:

“To be sure, we have generally acknowledged that an indefiniteness analysis under 35 U.S.C. § 112, ¶ 3 is ‘inextricably intertwined with claim construction.’” Atmel Corp. v. Info. Storage Devices, Inc., 198 F.3d 1374, 1379 (Fed. Cir. 1999.) Accordingly, the common practice of training questions of indefiniteness on individual claim terms is a helpful tool. Indeed, if a person of ordinary skill in the art cannot discern the scope of a claim with reasonable certainty, it may be because one of several claim terms cannot be reasonably construed. See, e.g., Interval Licensing LLC v. AOL, Inc., 766 F.3d 1364, 1374 (Fed. Cir. 2014) (finding the phrase ‘unobtrusive manner’ rendered claims indefinite because, even after consulting the claims, specification, and prosecution history, a skilled artisan would be left ‘to consult the unpredictable vagaries of any one person’s opinion’) (citations and internal quotation marks omitted).

Nevertheless, indefiniteness under § 112, ¶ 2 must ultimately turn on the question set forth by Nautilus: whether the ‘*claims*, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” Id. at 2129 (emphasis added).”

Cox Comm’s, Inc. v. Sprint Comm’n Co., 838 F.3d 1224, 1231–32 (Fed. Cir. 2016).

Per the guidance from the Cox Court, this Court will address indefiniteness at this phase to the extent a specific claim term needs be construed to inform a person having ordinary skill in the art as to the scope of the claims at issue.

III. TERMS AT ISSUE

A. Summary of Party’s Positions

Procon relies on the testimony of its expert, Dr. Wilhelm and proposes constructions for most of the disputed claim terms. Furthermore, Procon argues that Spireon’s constructions are logically inconsistent, noting that “[w]herever Spireon proposes plain and ordinary meaning, it claims that Procon’s proposed constructions are unduly limiting by importing limitations. Yet, wherever Spireon proposes that construction is necessary, it seeks to limit the claims by importing limitations that are not recited in the disputed terms.” (ECF No. 44 at PageID 1686.) Procon’s theory is that Spireon “seeks to narrow certain claim terms to avoid the prior art,” specifically the

prior art that was raised by Procon in its Petition for Post Grant Review. (Id.) The gist of Procon's argument to the Court is that it should construe the disputed terms now in order to reduce ambiguity and not leave it up to the fact-finder to deliberate as to what a person having ordinary skill in the art ("PHOSITA") *may* think the terms mean. (ECF No. 47.) A further rationale for Procon's request for construction of many of these terms is that they may be dispositive of infringement, particularly the "in response to" term. (ECF No. 47 at PageID 2536.)

Conversely, Spireon argues that Procon is attempting to use claim construction as a vehicle to track its own litigation arguments, particularly after its failure in instituting a Post-Grant Review at the PTAB. (ECF No. 48 at PageID 2550.) Furthermore, the crux of Spireon's argument is that Procon's constructions attempt to import limitations into the claims in order to avoid infringement or read prior art into the claims. (Id.) Spireon asks the Court to take a cautious approach with respect to claim construction, so as not to resolve infringement questions now. (Id. at PageID 2551.) Furthermore, Spireon rebuts many of Procon's assertions by arguing that they over-rely on expert testimony as opposed to intrinsic evidence, such as the specification, prosecution history, and claims. (Id.)

B. Procedural Background

Procon filed its Opening Claim Construction Brief on September 11, 2020. (ECF No. 44.) Defendant filed its Responsive Claim Construction Brief on October 9, 2020. (ECF No. 48.) The parties jointly filed a claim construction and prehearing statement on September 16, 2020. (ECF No. 49.) A hearing to discuss the parties' positions took place on November 9, 2020. (ECF No. 54.)

At the hearing, both parties provided alternative constructions for some of the terms in dispute. The Court has adopted or utilized the parties' suggested constructions where possible.

C. Agreed-Upon Terms

Term	Agreed Construction
“partial vehicle identifier”	Plain and ordinary meaning
“location device identifier”	Data that permits the computer to uniquely identify a location device

D. Overview of Disputed Claim Terms

Disputed Term	Procon’s Proposed Construction	Spireon’s Proposed Construction	Court’s Construction
“location device owned by the dealer”	A device that can determine and transmit location information and that is held as an asset by a vehicle dealer	Location devices owned and belonging to the dealer and available for installation on a vehicle in the dealer’s vehicle inventory	A device owned by the dealer that can determine and transmit location information
“in response to the location device being communicatively coupled with the vehicle”	As a direct result of initial communication between the location device and the vehicle	No construction necessary; plain and ordinary meaning.	As a result of the location device becoming connected with the vehicle.
“connection notice”	A transmission that the computer interprets as indicating an initial communication between the location device and the vehicle.	No construction necessary; plain and ordinary meaning.	A transmission or series of transmissions indicating that the location device is connected to the vehicle.
“in response to the connection notice received by the computer”	As a direct result of receiving the connection notice without requiring any additional communications being received by the computer.	No construction necessary; plain and ordinary meaning. Alternatively, As a result of receiving the connection notice	As a result of receiving the connection notice.

[associating/ disassociating] the location device [with/from] a dealer's group of available location devices in the memory	[associating/ disassociating] the location device [with/from] a group of location devices that are not presently associated with a vehicle in the memory	Adding/removing the location device to/from the dealer's group of location devices owned by the dealer and available for installation in a vehicle in the dealer's vehicle inventory.	[associating/ disassociating] the location device [with/from] a dealer's group of location devices present for use in the memory.
“disconnect notice”	A transmission that the computer interprets as indicating that the location device is no longer communicating with the vehicle.	No construction necessary; plain and ordinary meaning.	A transmission or series of transmissions indicating that the location device is no longer connected to the vehicle.
“ownership information”	Information that indicates a party has an ownership interest in the vehicle or holds the vehicle as an asset.	No construction necessary; plain and ordinary meaning.	Plain and ordinary meaning.
“user interface”	An input/output mechanism.	No construction necessary; plain and ordinary meaning.	Software, hardware, firmware, or a combination thereof that allows for input and output of information.

1) “location device owned by the dealer”

Disputed Term	Procon's Proposed Construction	Spireon's Proposed Construction	Court's Construction
“location device owned by the dealer”	A device that can determine and transmit location information and that is held as an asset by a vehicle dealer	Location devices owned and belonging to the dealer and available for installation on a vehicle in the dealer's vehicle inventory	A device owned by the dealer that can determine and transmit location information.

The key disputed portion of this claim term is “owned by the dealer.” Procon argues for a two-part construction of this term—first construing “location device” and then construing “owned by the dealer.” (ECF No. 44 at PageID 1687.) Procon argues that “location device” means “a device that can determine and transmit location information,” citing to both the testimony of its expert Dr. Wilhelm, as well as the testimony of Defendant’s expert, Mr. Nranian. (Id.) The second half of Procon’s construction posits that “owned by the dealer” means “held as an asset by a vehicle dealer.” (Id. at PageID 1688.) In particular, Procon asserts that Spireon is attempting to avoid invalidity arguments at play due to a prior art reference (ECF No. 44-1, “Boling Reference”), which discusses ownership by banks or lenders. Furthermore, Procon says that the critical inquiry here is what constitutes being “owned by” and purports to put forward a construction that answers this question—a PHOSITA would understand “owned by” to mean being held as an asset without any specific numerical ownership interest. (ECF No. 44 at PageID 1688, ECF No. 44-3, ¶¶ 55–57.) Procon’s expert, Dr. Wilhelm, also explains that “regarding vehicle ownership, a POSITA would have understood that all the vehicles are held as assets by the dealers....This understanding would have applied equally to location device ownership.” (ECF Nos. 44-3, ¶¶ 55–56; 44-4, ¶¶ 58–60.)

To support this proposition, Procon also points to the dictionary definitions provided by Spireon; specifically, the transitive form of “own” is to “own or hold as property: POSSESS” or “to have power or mastery over.” (ECF No. 44 at PageID 1689.) Procon utilizes this to argue that the “owned by dealer” portion of the term can entail having multiple parties holding the location devices as an interest.

For its arguments, Spireon points to the intrinsic evidence in the ’598 patent, citing to the preamble of Claim: “A method for managing *a vehicle inventory for a dealer.*” (ECF No. 38 at

PageID 352.) Furthermore, Spireon argues that the claims should be construed in the context of a “dealer’s group of available location devices.” Spireon also points to figures 10, 11, and 12 showing vehicles that are in the dealer’s vehicle inventory, as well as a portion of the specification that notes “[t]he inventory management system 100 may be configured to automatically associate and/or disassociate a vehicle and/or device with the dealer’s vehicle inventory.” (ECF No. 38 at PageID 353.) Furthermore, Spireon rejects any arguments made by Procon regarding the prosecution history of the ’598 patent, noting that “location devices owned by the dealer” was only added to Claim 1 in the Amendment and Response to the Office Action dated May 16, 2018 to clarify the term, not to avoid the prior art. (Id. at PageID 354.) Spireon also points to the PTAB’s decision not to institute Post-Grant Review, in which it found that the “ownership” requirement was not found in the prior art, or that this requirement would have been obvious. (Id.) Notably, the PTAB found that, with respect to the Boling prior art reference, Procon did not provide an “explanation of why it would matter in managing the inventories whether the location devices are owned by a third party and leased to the bank or auto dealer, and [] no evidence concerning ownership of location devices by the auto dealer.” (ECF No. 38-6 at PageID 473–474.) Procon asks the Court to not give weight to the PTAB, while Spireon argues that the Court should defer to the PTAB’s express findings. Procon also takes issue with Spireon’s construction for improperly importing “available for installation on a vehicle in the dealer’s vehicle inventory” into “owned by the dealer.” (ECF No. 44 at PageID 1689.)

With this term, the Court finds it necessary to at least construe “location device.” As iterated by Procon, “it is not readily apparent what a location device is unless that’s read in the context of the specification and claim language.” (Hearing Tr. at 18:21–19:1). The ’598 Patent provides that a “location device may comprise any suitable system for determining a physical

location of the location device and communicating the position to the inventory management system.” ’598 Patent, 6:55–58. While Spireon asserts that this definition would be merely “rewriting this term”, Spireon did not otherwise take issue with defining location device as a device that can determine and transmit location information. (Hearing Tr. at 27:12–30:24.) Regarding the second portion of the term —“owned by the dealer”— the Court finds that any additional construction beyond the plain and ordinary meaning would be unnecessarily confusing to the jury.

2) “in response to the location device being communicatively coupled with the vehicle”

Disputed Term	Procon’s Proposed Construction	Spireon’s Proposed Construction	Court’s Construction
“in response to the location device being communicatively coupled with the vehicle”	As a direct result of initial communication between the location device and the vehicle	No construction necessary; plain and ordinary meaning.	As a result of the location device becoming connected with the vehicle.

Procon seeks to construe this term in order to establish a “cause-and-effect relationship” as part of the coupling process. (ECF No. 44 at PageID 1691.) For example, Procon points to the language of Claim 1, which recites an ordered set of steps requiring functions performed by the location device and computer. (ECF No. 44 at PageID 1691.) For effect, Procon adds “first”, “next”, and “in response” to the language of Claim 1 below:

First: communicatively coupling the location device with a vehicle. In response: the location device transmitting a connection notice over a network. Next: receiving, by the computer the connection notice from the location device over the network. In response, the processor: associating the location device identifier with the vehicle identifier in the memory; and disassociation the location device from the dealer’s group of available location devices in the memory.

(Id. (emphasis in original).)

Spireon's expert, Mr. Nranian addresses the amendments made in prosecution (i.e., the addition of "in response to") by arguing this language was only added to clarify the order of steps. (ECF No. 44-1, ¶ 48.) He further points to the specification's use of "may" in order to show a broad construction of any claim term, asserting that a POSITA "would understand that Procon's and Dr. Wilhelm's proposed construction that include the terms 'direct' and 'initial' are wrong, because the specification does not specifically limit the response as occurring as a direct and initial result contradicts governing claim construction principles." (ECF No. 44-5, ¶ 35.) However, the plain language "in response to" is not readily explained away. Procon correctly notes that specifications do not provide the bounds of claims, the claims do. (ECF No. 44 at PageID 1693.) The crux of Spireon's argument here is that "[p]ortions of this term are used throughout the specification of the '598 Patent in a diverse manner" and thus "the specification refers to the phrase 'communicative coupling' as an act that could be distinct from actually communicating data or an act that occurs along with communicating data." (ECF No. 38 at PageID 357.) Spireon admits that the term "in response to" was added to Claim 1 in an amendment to overcome § 112 and indefiniteness, but states this was "solely for the purpose of clarifying the order of steps listed in Claim 1." (Id. at PageID 357.) Spireon also argues that the "specification of the '598 Patent describes numerous actions, steps, or procedures that may occur immediately, concurrently with other steps, after other steps, or that may not occur at all." (Id. at PageID 358.)

The parties also dispute whether there was a disclaimer in the prosecution history. Procon asserts that the Applicants amended the claims to move the limitation from the preamble to the body to overcome Shaytovich prior art reference. (ECF No. 44 at PageID 1694.) Spireon argued that the Shaytovich reference did not disclose that Shaytovich's RFID device transmits a

connection notice “based on the location device being connected with the vehicle communication interface.” (ECF No. 44-3, ¶ 76.) Specifically, at the Patent Office, Spireon argued:

“The RFID device of the Shaytovich system is not a location device that determines a physical location, it is not selectably connectable with a vehicle communication interface. Although the Shaytovich telematics device transmits a message when it detects the RFID device, it does not **transmit a message based on the telematics device being connected with a vehicle communication interface.**”

(ECF No. 44-3, ¶ 76 (emphasis added).)

Procon points to the inherent inconsistency between Spireon’s arguments at the Patent Office and its current argument for claim construction. Spireon now argues that the “in response to” language was merely a clarification and was not necessary to overcome an Obviousness rejection over the Shaytovich reference. For example, Mr. Nranian states that a POSITA “would understand that the claims of the ’598 patent are distinguished over Shaytovich because Shaytovich does not disclose the telematics device being connected to the vehicle.” (ECF No. 44-5, ¶ 36.) However, as pointed out by Procon, “[a]pplicants explicitly stated that the ‘in response to the location device being communicatively coupled with the vehicle’ overcame Shaytovich because Shaytovich did not ‘transmit a connection notice based on being connected with a vehicle communication interface.’” (ECF No. 44 at PageID 1695.) Furthermore, the Examiner’s notice of allowance states that “the cited art does not explicitly disclose the disassociate of a location device from an inventory predicated upon communicative coupling to a vehicle and a connection notice.” (ECF No. 44-7 at 19.) Spireon asserts that it “never clearly and unmistakably disavowed scope during the prosecution history of the ’597 Patent.” (ECF No. 38 at PageID 358.)

This particular term has also been at least partially addressed by the Federal Circuit in American Calcar, Inc. v. American Honda Motor Co., Inc., 651 F.3d 1318 (Fed. Cir. 2011) (Finding that the term “in response to” connotes that the second events occurs in reaction to the first event.”) Procon points to additional district court cases construing similar constructions for

“in response to.” See, e.g., Keen, Inc. v. InfoRocket.com, Inc., No. 01-cv-8226 (S.D.N.Y. July 26, 2002) (“The plain meaning of the words in claim 1 is that clicking on or selecting a displayed icon corresponding to an expert results in an immediate telephone connection between the expert and the consumer, without a series of intervening manual steps.”); see also Fujitsu Ltd. V. Belkin International, Inc., No. 10-cv-03972 (N.D. Cal. Sept. 28, 2012) (Concluding that “in response to” connotes a “cause-and-effect relationship rather than a straight temporal sequence....[T]he information is transferred ‘in response’ its receipt.”)

Spireon spends a large portion of its rebuttal briefing on this term. For one, it argues that the term is clear on its face and does not need construction. (ECF No. 48 at PageID 2556.) It goes on to say that “Procon goes beyond just a mere cause-and-effect relationship” and “urges the Court to adopt a construction that limits this term to [*sic*] the effect of only a *single* cause and not allowing any other causes — a narrow position that is directly contradicted by the intrinsic evidence. (ECF No. 48 at PageID 2557.) Spireon asserts that “[n]othing in the claims requires that communicative coupling of the location device alone be ‘necessary and sufficient’...to transmit a connection notice over a network.” (*Id.* at PageID 2558.) The gist of Spireon’s argument is that “[n]o portion of the claim language or specification expressly excludes the occurrence of other steps that would lead to the location device transmitting the connection notice” and that “no portion of the claim language or specification suggests that the only requirement for transmitting the connection notice must be that the location device is communicatively coupled with the vehicle.” (*Id.*) Entering Procon’s construction would, according to Spireon, be an impermissible importation of a limitation from the written description into the claims. (*Id.*)

Spireon reiterated these arguments at the Markman hearing, but conceded that it is “not suggesting that the term ‘in response to’ is not in this claim, and [is] not really arguing that there’s

not some relationship between or relationship that’s conveyed by using ‘in response to,’ but [does] disagree that [it] [has] to limit this term to exclude any other events that may be required to occur.” (Hearing Tr. at 44:15–20.) Furthermore, Spireon asserted at the hearing that while the claim can be construed to establish a causal relationship in accordance with American Calcar, the court should not unduly limit the claim such that “no other event may intervene or have any impact whatsoever on the occurrence of the second event.” (Hearing Tr. at 48:16–20.) The Court agrees and construes this term so as to establish a causal link between the steps without unnecessarily limiting the claim more so than what is provided by the intrinsic evidence. Conversely, the Court agrees with Procon that “communicatively coupling” is not a term that would be readily apparent to a jury and should be defined so as to establish that the location device and the vehicle are now able to communicate with one another. Accordingly, the Court construes the term “in response to the location device being communicatively coupled with the vehicle” to mean “as a result of the location device becoming connected with the vehicle.”

3) “connection notice”

Disputed Term	Procon’s Proposed Construction	Spireon’s Proposed Construction	Court’s Construction
“connection notice”	A transmission that the computer interprets as indicating an initial communication between the location device and the vehicle.	No construction necessary; plain and ordinary meaning.	A transmission or series of transmissions indicating that the location device is connected to the vehicle.

Procon points the Court to Claim 1, which states that the location device transmits the connection notice “in response to the location device becoming communicatively coupled with the vehicle.” (ECF No. 44 at PageID 1699.) Procon argues this “connection” for which “notice” is

being provided is the communicative coupling of the location device with the vehicle, and that no other type of connection is contemplated by the claim. (Id.) Procon further adds that its construction of this term is consistent with the specification, which it argues contemplates only “one way for the location device to determine that it has been connected to the vehicle—communicative coupling.” (ECF No. 44-4, ¶ 81.)

Spireon proposes that this be construed according to its plain and ordinary meaning, and its expert argues that a “connection notice” “may just mean that systems or devices are or have become connected,” or “may mean notice that devices are connected across the network.” (ECF No. 44-5, ¶ 41.) Claim 1 includes “transmitting a connection notice over a network.” ’598 patent at cl. 1. Mr. Nranian’s assertion that “connection notice” may describe “notice of a connection over a network” thus does not follow logically based on principles of claim differentiation. In its rebuttal, Procon also pointed out that the “purpose of transmitting the connection notice is to tell the computer that the location device has just connected to a vehicle and should be associated with that vehicle in the database. It would make no sense for the computer to transmit the connection notice and perform the association and disassociation steps again after doing so the first time the location device connected to the vehicle.” (ECF No. 47 at PageID 2540.) In a way, this is an inherency argument—a connection notice must inherently be a transmission. Procon posits this as the following question: “How else would the claimed computer receive a ‘connection notice’ other than by receiving a transmission other than by receiving a transmission that it interprets as a connection notice?” (ECF No. 47 at PageID 2540.)

Spireon argues that this term is “one that has a meaning that would be readily apparent to a jury, namely that a connection notice is notice of a connection.” (ECF No. 38 at PageID 359.) This is a circular argument that does not inform the jury of what type of information is

encompassed in a connection notice. Spireon also asserts that Procon seeks to unduly limit the claim term, and that the term is “not narrowly defined to include only a single transmission that the computer interprets as indicating an initial communication between the location device and the vehicle. The ’598 Patent describes that information from the location device may be reviewed and that it may be determined if a notification needs to be sent, if a command needs to be sent to the location device, etc.” (Id. at PageID 360.)

At the hearing, Procon pointed out that “connection notice is not used in the specification”, but that the specification does provide that “the location device may be programmed or otherwise configured to retrieve the VIN of a vehicle when it is coupled with the vehicle and to transmit to the inventory management system the VIN and its own identifier.” (Hearing Tr. at 54:12–17.) Additionally, “disconnect notice” is used in the specification. See ’598 Patent at 17:16–62. In other words, the location device sends a transmission indicating that it can now communicate with the vehicle. The Court agrees with Procon’s position that the connection notice is a “transmission of data” over a network. Spireon indicated that its main issue with Procon’s suggested language is not that “the fact that connection notice is transmitted”, but that “a transmission’ might imply just a singular transmission or a discrete transmission that takes place.” (Hearing Tr. at 55:10–14.) The Court agrees that the connection notice may be via a series of transmissions, and not necessarily be limited to one discrete transmission of data. However, the Court disagrees with Spireon’s continued assertion that “connection notice” is merely a “notice of connection” and does not need to be defined. (Id. at 56:14–18.) The Court finds this to be insufficient because of the testimony by Spireon’s expert, Mr. Nranian, who argues that connection notice “may just mean that systems or devices are or have become connected” or “may mean notice that devices are connected across the network.” (ECF No. 44-5 ¶ 41.) Accordingly, the Court construes

“connection notice” to mean “a transmission or series of transmissions indicating that the location device has been connected to the vehicle.”

4) “in response to the connection notice received by the computer”

Disputed Term	Procon’s Proposed Construction	Spireon’s Proposed Construction	Court’s Construction
“in response to the connection notice received by the computer”	As a direct result of receiving the connection notice without requiring any additional communications being received by the computer.	No construction necessary; plain and ordinary meaning. Alternatively, As a result of receiving the connection notice	As a result of receiving the connection notice.

The Court adopts a construction that establishes the cause and effect relationship envisioned by the term limitation “in response to”, as discussed in Section IV.D.2 in this Order. At the Hearing, Spireon agreed that if the Court needs to construe the term, then “as a result of receiving the connection notice” would be adequate without importing a negative limitation. (Hearing Tr. at 60:19–61:6.)

5) [associating/disassociating] the location device [with/from] a dealer’s group of available location devices in the memory

Disputed Term	Procon’s Proposed Construction	Spireon’s Proposed Construction	Court’s Construction
[associating/disassociating] the location device [with/from] a dealer’s group of available location devices in the memory	[associating/disassociating] the location device [with/from] a group of location devices that are not presently associated with a vehicle in the memory	Adding/removing the location device to/from the dealer’s group of location devices owned by the dealer and available for installation in a vehicle in the dealer’s vehicle inventory.	[associating/disassociating] the location device [with/from] a dealer’s group of location devices present for use in the memory.

The dispute in this term revolves around defining the term “available.” Spireon argues that the plain and ordinary meaning of this term necessarily means that “location devices are owned by the dealer and are available for installation on vehicles in the dealer’s vehicle inventory.” (ECF No. 38 at PageID 366.) Spireon’s expert argues that because the specification “states that the location device may be [1] coupled to a vehicle owned by a car dealer, [2] within the dealer’s vehicle inventory, or [3] configured with a zone comprising the car dealer’s lot,” a PHOSITA would understand the term to be for a device owned by the dealer and in its inventory. (ECF No. 44-5, ¶ 65.) Procon, on the other hand, argues that the “specification is teaching three alternative embodiments, none of which are referenced in the disputed claim term,” and that the use of the term “comprises” in the wherein clause necessarily means that the dealer’s group of location devices “may include both location devices owned by the dealer and those that are not owned by the dealer.” (ECF No. 44 at PageID 1702.) At the Markman hearing, Procon reiterated its assertion that Spireon seeks to import two limitations with its proposed construction. (Hearing Tr. at 62:7–64:15.) Conversely, Spireon asserted that there was no reason to depart from the plain and ordinary meaning. (Hearing Tr. at 65:10–22.)

The Court does not see a reason to remove the use of the term “dealer” from “dealer’s group of available devices”, but also rejects Spireon’s proposed construction, which appears to import additional term limitations into the term limitation “available.” Because both parties purport to be defining the plain and ordinary meaning of the claim term, the Court finds that a construction is necessary to avoid jury confusion. In C-Cation Techs., LLC v. Time Warner Cable, Inc., the district court discussed a dispute over the term “available” in U.S. Patent 5,563,883, entitled “Dynamic Channel Management and Signalling Method and Apparatus.” 2015 WL 1849014 (E.D. Tex. Apr. 20, 2015). In C-Cation, Defendants asserted that the term “available”

was “highly subjective” and one that “different persons skilled in the art may come to different conclusions about.” C-Cation Techs., 2015 WL 1849014 at *8. Conversely, Plaintiffs asserted that the term was “clear on its face.” Id. The court cited to intrinsic evidence which showed that the *availability* of a channel to carry traffic was “based on a determination of a number of factors including the number of terminals using the signaling data channel, the traffic requirements, past collision counts, channel error status and bandwidth of the signaling data channel.” Id. Accordingly, it found that “availability” was not limited to being only “capable of carrying signaling data” as suggested by Defendants and was “used in the context of merely being present for use.” Id. The court’s decision and analysis in C-Cation is helpful to the Court in this instance. Here, availability is used in the context of the “memory” and should be construed within the confines of that context. Thus, being available necessarily means that the location device is present for use in the memory. The Court adopts that definition of “available” and construes this term as “[associating/disassociating] the location device [with/from] a dealer’s group of location devices present for use in the memory.”

6) “disconnect notice”

Disputed Term	Procon’s Proposed Construction	Spireon’s Proposed Construction	Court’s Construction
“disconnect notice”	A transmission that the computer interprets as indicating that the location device is no longer communicating with the vehicle.	No construction necessary; plain and ordinary meaning.	A transmission or series of transmissions indicating that the location device is no longer connected to the vehicle.

The Court construes this term consistent with its analysis under III.D.3.

7) “ownership information”

Disputed Term	Procon’s Proposed Construction	Spireon’s Proposed Construction	Court’s Construction
“ownership information”	Information that indicates a party has an ownership interest in the vehicle or holds the vehicle as an asset.	No construction necessary; plain and ordinary meaning.	Plain and ordinary meaning.

At the hearing, the parties indicated that they were not too far apart on this construction, and Spireon indicated that its main goal with this term is to express “information about the owner of the vehicle.” (Hearing Tr. at 69:21–23.) Procon agreed with this alternative construction and stated that it may be easier for a jury to understand “information related to ownership” instead of “ownership information.” (Hearing Tr. at 70:11–17.) Spireon did not take issue with this construction, but argued that such a construction was merely rewriting the term. (Hearing Tr. at 70:20–72:1.) As noted by Spireon, the term “ownership information” is “used throughout the dependent claims, including ‘querying a dealer management system associated with the vehicle for ownership information of the vehicle’ and ‘receiving the ownership information.’” (ECF No. 38 at PageID 368.) The Court does not see a reason to depart from the plain and ordinary meaning and rewrite the term in this instance.

8) “user interface”

Disputed Term	Procon’s Proposed Construction	Spireon’s Proposed Construction	Court’s Construction
“user interface”	An input/output mechanism.	No construction necessary; plain and ordinary meaning.	Software or hardware or a combination thereof that allows for input and output of information.

To support its construction, Procon points to the patent specification, which states that “[t]he interface 220 may represent any desired data input/output mechanism.” ’598 patent at Col. 8, ll. 49–50. Figure 1 in the patent also “depicts the user interface as providing an input/output pathway between the database and the user.” (ECF No. 44 at PageID 1706.) At the hearing, Procon reiterated that the patent specification envisions “any desired data input-output mechanism” and provides examples of these mechanisms, including “all user interfaces, a web application, a software application, a PDA, a mobile communication device.” (Hearing Tr. at 72:19–23.) Procon added that its goal in this construction was that the “jury understands that it doesn’t have to be ... someone on the computer logging in” and that “it could be right at the terminal of the database” or just “a monitor and keyboard[.]” (Hearing Tr. at 73:10–15.) Spireon argues for plain and ordinary meaning, but suggests that the term could be construed as an “application or something that’s presented to the user that the user can input or output through[.]” (Hearing Tr. at 75:2–5.) The issue Procon takes with this construction is that it would create situations in which the jury would be deciding questions of scope by having to determine whether the “user interface” is limited to a web application, or if it is broader than that, including items from prior art before mobile phones and PDAs were available. (Hearing Tr. at 75:14–76:11.)

Spireon argues that Procon’s construction is at odds with the plain and ordinary meaning and the intrinsic evidence. (ECF No. 38 at PageID 369.) For example, it cites to the specification, which provides that an interface “may comprise the user interface and an input device, allowing the users to manipulate the inventory management system 100, and an output allowing the system to indicate the effects of the users’ manipulation.” ’598 patent, col. 9, ll. 55–59. Thus, “the ’598 Patent refers to a ‘user interface’ as separate from an input or output mechanism in at least one embodiment.” (ECF No. 38 at PageID 369.) Other portions of the specification and claims are

helpful for the context in which “user interface” is used. Claim 6 provides that the retrieved location information is presented “by the user interface.” ’598 Patent at cl. 6. The specification discusses the “user interface” at length:

The **user interface** may comprise any suitable system or device such as a web application interface. This **user interface** may assist users in interacting with the inventory management system 100 configured to provide machine-to-machine connectivity, retrieve data, and/or control a particular machine, device, computer program, or other complex tool. The interface 220 may comprise the **user interface** and an input device, allowing the users to manipulate the inventory management system 100, and an output, allowing the system to indicate the effects of the users’ manipulation. For example, the interface 220 may comprise a graphical **user interface** (GUI), a web-based **user interface** and/or web **user interface**, command line interface, tactile interface, touch interface attentive **user interface**, batch interface, conversational interface agent, crossing-based interface, device control panel interface, gesture interface, intelligent **user interface**, multi-screen interface, noncommand **user interface**, object-oriented **user interface** (OOUI), reflexive **user interface**, tangible **user interface**, text **user interface**, voice **user interface**, natural-language interface, zero-input interface, and/or zooming **user interface**.

’598 Patent at 9:49–10:2 (emphasis added).

The context for “user interface” is therefore exceedingly broad and goes beyond the web-based application suggested by Spireon at the Markman hearing. Spireon also suggested “input-output interface” as an alternative construction. (Hearing Tr. at 74:7–9.) The Court seeks to adopt the “input-output” characteristics envisioned by the intrinsic evidence without reusing the term “interface” in construing the claim.

In Convolve, Inc. v. Compaq Computer Corp., the Federal Circuit reviewed a grant of summary judgment that hinged on a construction of “user interface”. 812 F.3d 1313, 1317–18 (Fed. Cir. 2016). The Federal Circuit reiterated the Southern District of New York’s construction of “user interface” as “software, hardware, firmware, or a combination thereof that allows a person, directly or indirectly, to alter parameters.” Id. at 1317–18 (internal citations and quotations omitted). “In construing the term, the court determined that a ‘user interface’ is not limited to a

graphical user interface or mechanical switches, which were both disclosed in the specification.”

Id. at 1318.

The Federal Circuit affirmed the district court’s findings with respect to user interface:

We find that both the district court’s construction of the term ‘user interface’ and its application of that construction were proper. The language of the claim supports the district court’s construction of ‘user interface’ as ‘the site at which a user actually selects an operating mode.’ **The claim term is ‘user interface’, not just ‘interface.’ The word ‘user’ therefore must distinguish between different kinds of interfaces.** In the claimed method, the only action that a user takes is selecting an operating mode. The ‘user interface’ is thus the interface that the user interacts with to select an operating mode—not subsequent interfaces or components that merely execute the user’s selection....**The specification discloses several embodiments of a ‘user interface’, all of which the user interacts with directly to select an operation mode.** The specification discloses five graphical user interfaces, shown in the figures as computer screen images with arrows or a sliding bar that a person manipulates with a mouse to select seek speed. It also describes a mechanical switch on the hard drive itself that a user physically pushes to change the operation mode. **Although the claims are not limited to these particular embodiments, the nature of these embodiments confirms that a ‘user interface’ must be the site at which the user actually selects an operation mode.**

Convolve, Inc., 812 F.3d 1318–19.

Here, the Court is similarly presented with a broad disclosure in the specification that lists several embodiments of a user interface—the nature of which suggests that the “user interface” must be such that allows for input and output between the user and the system. Accordingly, the Court borrows in material part the language used by the Federal Circuit to construe “user interface” as “software or hardware or a combination thereof that allows for input and output of information.” The Court’s construction should assist the fact-finder in understanding the broad scope of the term while defining what an “interface” may be in the context of the ’598 Patent.

IV. Summary of Construction

Disputed Term	Court's Construction
“location device owned by the dealer”	A device owned by the dealer that can determine and transmit location information
“in response to the location device being communicatively coupled with the vehicle”	As a result of the location device becoming connected with the vehicle.
“connection notice”	A transmission or series of transmissions indicating that the location device is connected to the vehicle.
“in response to the connection notice received by the computer”	As a result of receiving the connection notice.
[associating/disassociating] the location device [with/from] a dealer's group of available location devices in the memory	[associating/disassociating] the location device [with/from] a dealer's group of location devices present for use in the memory.
“disconnect notice”	A transmission or series of transmissions indicating that the location device is no longer connected to the vehicle.
“ownership information”	Plain and ordinary meaning.
“user interface”	Software or hardware or a combination thereof that allows for input and output of information.

It is SO ORDERED, this 19th Day of February, 2021.

/s/ Jon P. McCalla
JON P. McCALLA
UNITED STATES DISTRICT JUDGE